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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,945	03/19/2004	Kenichi Shimooka	TSM-37	7176

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MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER

PERUNGAVOOR, VENKATANARAY

ART UNIT	PAPER NUMBER
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2132

MAIL DATE	DELIVERY MODE
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08/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/803,945

Applicant(s)

SHIMOOKA ET AL.

Examiner

Venkat Perungavoor

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7, 9-11, 14-17, 19 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 9-11, 14-17, 19, 21-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, see pages 10-12, filed 7/2/2007, with respect to the rejection(s) of claim(s) 7, 9-11, 14-17, 19, 21-28 under 35 USC § 102(b) as anticipated by US Patent 5483649 to Kuznetsov et al have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of US Patent Publication 2004/0010732 to Oka.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 10-11, 14-17, 19, 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication 2004/0010732 to Oka in view of US Patent Publication 2003/0188191 to Aaron et al.(hereinafter Aaron)

Regarding Claim 7, 10-11, 14, Oka discloses the computer system including a host computer coupled to and separate from a storage system which has first volume for storing received data(Fig. 4 item 111) and second volume(112) that is a pair of first volume and stores data that is replicated from first volume, and storage control unit for controlling the data replication from the first volume to second volume(Fig. 1 item 104) , a data protection apparatus coupled to and separate from the host computer and storage system having an even detection unit for detecting event occurrence(Fig.

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3 item 121); a replication stopping unit for instructing said storage control unit to stop replication of data of first volume to second volume, when an event detection unit detects an event(see Par. 0058); an virus detection for detecting an virus intrusion into host computer(see Par. 0057); event detection unit receives a detection of the virus from virus detection unit and event detection unit receives the detection of virus , replication stopping unit instructs storage control unit to stop data replication from first volume to second volume that is pair of first volume(Par. 0027 & Par. 0065). However, Aaron discloses the intrusion detection unit for detecting of illegal intrusion see Fig. 4 item 360. It would be obvious to one having ordinary skill in the art at the time of the invention to modify the virus detection to intrusion detection in the invention of Oka in order to broaden the applicability of the invention.

Regarding Claim 15, Oka discloses the write data to first volume is replicated by control unit with delay in given time see Par. 0037.

Regarding Claim 16-17, Oka discloses the plurality of second volumes are provided see Fig. 2 item 112; control unit switches a replication destination of write data from the first volume to second volume at given intervals see Fig. 2 item 104 & Fig. 1 item 105.

Regarding Claim 19, Oka discloses the control unit for communicating between host computer and first volume see Fig. 1 item 106 & 103; storage controller to stop communication between host computer and first volume when even is detected see Fig. 6 item S614 & S615.

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Regarding Claim 21, 23, 25, 27, Oka discloses the canceling of data replication from first volume to second volume see Fig. 6 item S614.

Regarding Claim 22, 24, 26, 28, Oka discloses the path disconnection unit for instructing control unit to stop communication between host computer and storage system, when event detection unit detects an event see Fig. 6 item S614.

Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication 2004/0010732 to Oka in view of US Patent Publication 2003/0188191 to Aaron et al.(hereinafter Aaron) further in view of US Patent Publication 2003/0233574 to Kouznetsov et al.(hereinafter Kouznetsov).

Regarding Claim 9, Oka discloses the replication stopping unit instructs control unit to stop replication from first volume to second volume see Par. 0058. But does not disclose the virus detection and receiving of detection by the unit. However, Kouznetsov discloses the computer virus detection unit for detecting a computer virus in storage system see Fig. 1 item 110, 112; event detection unit receives detection of computer virus see Fig. 3 item 308. It would be obvious to include the virus detection in the invention of Oka in order to thwart commonly known virus attacks.

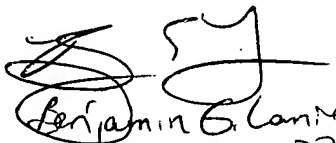
Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Venkat Perungavoor whose telephone number is 571-272-7213. The examiner can normally be reached on 8:30-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VP/
Venkat Perungavoor
Examiner
Art Unit 2132
August 13, 2007


Benjamin G. Lanier
Examiner AU 2132